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Numerical Relativity Waveforms in the LISA Era DEIRDRE SHOEMAKER, DEBORAH FERGUSON, Georgia Inst of Tech, KARAN JANI, Vanderbilt, PABLO LAGUNA, Georgia Inst of Tech — Gravitational wave astronomy in the mHz frequency promises detections of supermassive black hole binaries and the possibility of detecting these binaries at large signal-to-noise ratios. Strongly detected signals could allow us to accurately measure parameters, test general relativity, and more. Successfully estimating the parameters of the strong signal and leaving as little residual of the waveform in the data requires once identified requires high quality numerical relativity waveforms and template waveforms that span a larger parameter space including high mass ratios. We report on our preliminary efforts to assess the accuracy requirements.

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